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WATER.

WATER bears a very important part in relation to the human system and preservation of health. It combines with the tissues of the body, and forms a necessary part of its structure. In the case of a man weighing one hundred and fifty-four pounds, one hundred and eleven would consist of water. It enters very largely into the composition of our food. Although water is so important a factor in our existence, and although its vitiation often gives rise to that deadly pestilence, typhoid fever, yet, strange to say, there are comparatively few people who possess any trustworthy information respecting its primary sources and purest forms. The object of this paper will be to afford our readers some useful hints respecting the various kinds of water and their relative purity, also to mention certain wise precautions requisite in order to avoid impure water.

The first great source of water is the ocean; the sun shining upon the surface, its heating rays combine with and send out a certain amount of vapour. The atmosphere, like a sponge, absorbs the vaporous water, forming clouds, which are driven by the wind east, west, north, and south. When the clouds arrive in a cooler atmosphere, the vapour condenses, and descends in the form of rain or snow, being ultimately absorbed into the earth, giving rise to different varieties of water; or it pours down the mountains, and forms rivulets, and ultimately rivers. Thus we have rain, spring, and river water. We may here mention that Dr Normandy discovered a process by which sea-water can be distilled and rendered fit to drink. In nature, water is never found perfectly pure, as that which descends in rain is to a certain degree contaminated by the impurities contained in the air, as spring-water is by contact with various substances in the earth. These impurities are not always perceptible. Thus, the clearest and brightest waters, those of springs and pellucid rivers, even when filtered, are never pure. They

all contain a greater or less percentage of saline matter, often so much so, indeed, as to form what are termed mineral waters. Amongst the purest natural waters hitherto discovered is that of the Loka in North Sweden. It contains only one-twentieth of a grain (0.0566) of mineral matter per gallon. The water supplied to the city of Edinburgh contains from seven to fourteen grains in the gallon; whilst that of the Thames near London contains about twenty-one. Rain-water, if collected in the country, is the purest; but when obtained in or near large cities, becomes impure from passing through a vitiated atmosphere.

It is, however, on spring and river water that we depend for our daily supply, and a due consideration of these waters is manifestly a matter of no small moment.

Well-water, as also that of some springs, especially when obtained in or near towns, although cool and clear, and at times sparkling, is to be avoided. The solvent power of water being so great, it takes up many impurities from the soil through which it passes. In the neighbourhood of dwellings and farmyards, the water often is impure, and unfit to drink. Wells in the vicinity of graveyards are particularly to be avoided. Mr Noad found a hundred grains of solid matter to the gallon of water taken from a well in the vicinity of Highgate Church, London. Besides mineral substances, decaying vegetable impurities are usually found in wells. The water that supplies the surface-wells of London is derived from rain, which percolates through the gravel and accumulates upon the clay. Now, this gravel contains all the soakage of London filth; through it run drains and sewers, the surface also being riddled with innumerable cesspools.

River-water being derived from the conflux of many springs with rain-water, unless close to large towns, is decidedly preferable to well-water; but it is liable to a certain amount of contamination, by holding in suspension a considerable quantity of animal, vegetable, and earthy matters. This, according to Dr Paris, is unquestionably

the case in water supplied from the Thames by the Grand Junction Water Company. Be it known that Thames water is never used in London breweries, but Artesian-well water, brought up from a depth of several hundred feet.

Besides vegetable and animal impurities in water, there are two other substances which are usually considered foreign to pure water—namely, saline and mineral. The saline are often present in such large proportions as to render water medicinal, as illustrated by those of Cheltenham, Leamington, and Harrogate, numerous other varieties existing on the continent. Brighton water, although sparkling, contains a great deal of bi-carbonate of lime, which, being soluble, filtering is ineffectual to remove. When boiled, however, the carbonic acid is driven off and the chalk precipitated. Such water when boiled is fit for drinking purposes.

A simple but not infallible test for ascertaining animal or vegetable contaminations in water is to put fifteen or twenty drops of permanganate of potash solutions, or Condy's fluid, into a tumblerful of water. If the water is free from such impurities, the permanganate will retain its beautiful red colour. Should the water contain organic matter, the red hue soon disappears, and in proportion to its contamination will be the discoloration.

Bad water is far more dangerous than impure air; the air may be dispersed by ventilation and change of atmosphere; whilst water when vitiated is a constant source of mischief. Snow-water when collected in the open country equals rain-water in purity. It has been supposed by some to be unhealthy; but such belief is totally unsupported by any reliable evidence. The practical observations of Captain Cook on his voyage round the world demonstrate beyond all question its wholesomeness.

Lake-water is collected rain, spring, and occasionally river waters. Its transparency, however, is not to be relied on as evidence of purity. It is often contaminated by both vegetable and animal matter, which, owing to its stagnant nature, have become decomposed. According to Dr Paris and other authorities, endemic diarrhoea often arises from drinking lake-water, a circumstance which tourists would do well to bear in mind.

Should much lime be present in water, as in that supplied by the Kent Water Company, boiling alone will not soften it; but by the addition of a little soda during the boiling, the lime of the gypsum is precipitated. Marsh-water is certainly the most impure of all water, being loaded with decomposing vegetable matter. Many diseases have without doubt been occasioned by its use.

The receptacles in which even the purest water is kept are of the utmost importance in a hygienic point of view. The noted colic of Amsterdam was believed by Tronchin—who wrote a history of that epidemic—to have been

occasioned by leaves falling into leaden cisterns filled with rain-water and there putrefying. Van Sweiten also mentions an instance where a whole family were affected with colic from a similar cause. The acidity arising from decomposing leaves in water dissolves part of the leaden receptacle, and such water oftentimes thus induces lead-colic.

The sources of contaminated drinking-water are very numerous, and may affect the water at its source, in its flow, in its reservoir, or during distribution. When stored in houses, it is especially exposed to risk, and this is the most important argument in favour of constant service. Cistern stowage lessens the risks incidental to intermissions; but at the same time the success of this plan entirely depends upon the receptacle being properly made and frequently cleansed. An eminent physician told the writer that he believed typhoid fever often originated from the stagnant water in dirty cisterns being used for drinking purposes.

We have now arrived at the most important part of this paper—namely, the most effectual means for obtaining pure water.

For the purification of water, various methods have from time to time been suggested, with more or less success. Perhaps the most efficient for attaining so desirable an end is by passing it through layers of charcoal, a substance eminently useful in preserving water from corruption, by abstracting therefrom both vegetable and animal matter. Nevertheless, where there is reason to suspect the presence of much injurious contamination, the process of boiling previous to filtration should never be omitted. The water subsequently must be agitated in contact with the atmosphere, with a view to the restoration of its natural proportion of air; otherwise, it is insipid and tasteless. In China, water is seldom drunk until it has been boiled. According to the advice of a distinguished court physician, those who travel on the continent should studiously avoid drinking water, especially that contained in the bedroom bottles of hotels. The same authority is also of opinion that typhoid fever is often thus caught whilst travelling. Natural mineral waters, such as Apollinaris, are, he considers, the best to drink whilst travelling. Lastly, those who are desirous of drinking the purest water should take distilled water, which possesses the following advantages: (1) Great purity; (2) High powers as a solvent of all animal and vegetable substances; and (3) The material assistance which its remarkable solvent properties exercise in favouring a healthy digestion. It also assists in eliminating calcareous matter from the system; hence its undeniable utility for vesical concretions. To those who are unable to obtain distilled water, we would most strongly urge the importance of boiling all drinking-water, and then filtering through charcoal, previous to use. The charcoal through which water is filtered ought frequently to be replaced by a fresh supply, as otherwise it becomes choked up in time by impurities, which at last escape into the water. Under such circumstances, even filtered water may become contaminated.

Were this simple precaution more generally adopted, according to the latest teachings of science, many a life liable to be destroyed by typhoid fever would most assuredly be saved.

BY MEAD AND STREAM.

CHAPTER XII.—PULLED UP.

'THE strain is proving almost too much for me,' Philip wrote. 'I have no doubt that my scheme is practicable; and even if I fail, somebody else will carry it out by-and-by. But at present the men do not understand it, and are suspicious that my promises will not be fulfilled. So that the harder I strive to put matters right, the more wrong they seem to go. The losses are bringing me to a crisis, and the worry which is the consequence of daily disappointment is driving me out of my wits. Sleepless nights and restless nervous days began long ago, although I have not told you; and I have been obliged to swallow all sorts of rubbish in the form of narcotics. At first they gave me sleep, and that was a gain, notwithstanding the muddled head-achy feeling they left me next day.

'O yes; I have seen the doctor. Joy is a capital fellow. He came in by accident, and when he saw me, gave me good advice—as usual, the advice which could not be followed. He told me that I ought to have absolute rest of mind and body, and to secure it, ought to throw up everything. A good joke that—as good as telling a soldier that he ought to run as soon as he sees the chance of catching a bullet in the wrong way!

'Do not be afraid, though: I will take a long rest, when I get things a little straight here.

'One of my present worries is that Kersey has deserted—as I feared he would. Says he is going to Australia or Manitoba, but will give no explanation. That girl Pansy is no doubt at the bottom of it, and I do not think even you can set it right. If my suspicions are correct, she is the fool of her own vanity. She has thrown over an honest fellow, because she is thinking of a man who has no more notion of having anything to do with her than of trying to jump over the moon. I am sorry for her—especially as she deprives me of the best man about the place.

'As for Wrentham, he irritates me. He sees my anxiety, and yet he comes and goes as gaily as if the whole thing were a farce, which should not disturb anybody's equanimity, no matter how it ended. And then he has that horrible look of "I told you so" on his face, whenever I attempt to make him seriously examine the state of affairs.

'The fact is I begin to repent having ever asked for his assistance. He is much more interested in speculative stocks than in the business which ought to occupy his whole attention at this juncture.

'But, there—I am in a highly excited condition at present, and no doubt misjudge him. He does everything required willingly enough, although not in the spirit which seems to me necessary to the success of my plans.'

The letter was not finished, and so far it

did not give a full account of his sufferings mental and physical, or of the gravity with which Dr Joy had warned him that he must pull up at once, or prepare for insanity or death. The good little doctor had never before pronounced such a decided verdict, for, with professional discretion and natural kindness, he avoided a decisive prognosis unless the result were inevitable. Philip had promised obedience as soon as he got over the present difficulty—promised to take whatever drugs the doctor prescribed, and begged him in the meanwhile not to frighten the people at Willowmere (of course the doctor understood he meant Madge) with any alarming reports.

Philip was writing in his chambers late at night, when he was interrupted by the arrival of Wrentham. The visit had been expected, and therefore excited no surprise. Philip was struck by a change in his visitor's manner, which, although slight, was enough to render the description he had just written of him a little unfair.

Wrentham's face was not that of one who was gaily taking part in a farce. Still his bearing suggested the careless ease of a man who is either endowed with boundless fortune or a sublime indifference to bankruptcy. It might be that, being conscious of Philip's dissatisfaction, he assumed a more marked degree of nonchalance than he would have done if there had been confidence between them.

Philip did try to keep this rule in mind—that when your suspicions are aroused about any person, you should make large allowances for the exaggerations of the meaning of his or her actions, as interpreted by your own excited nerves, and for the altered nervous condition of the person who is conscious of being suspected. But somehow, the rule did not seem to apply to Wrentham. In favour or out of favour, he was much the same. He was a cool-headed or light-hearted gambler in the business of life, and took his losses as coolly as he took his winnings—or feigned to do so; and this feigning, if well done, has as much effect upon the looker-on as if the feeling were genuine.

'Any news?' Philip inquired, as he put his letter into the desk and wheeled round to the fire, by the side of which his visitor was already seated.

'None; except that our friend appears to consume an extraordinary quantity of B. and S. But Mr Shield could not be seen by any one this evening. The man first told me he was out; so I left your note and said I should return in an hour. Then I marched up and down near the door, on the watch for anybody like your uncle. I did not see him, but I saw a friend of mine arrive.'

'Who was that?'

'You know him—Beecham, who has been living so long at the *King's Head*.'

'That was an odd coincidence.'

'Yes, it seemed so,' rejoined Wrentham, with the tone of one who sees more than he reports. 'Very odd that the day after your uncle leaves the *Langham* and takes up his quarters in this quiet private hotel, Beecham should bundle up his traps, quit Kingshope, and come to settle in the same house.'

'Has he left our place, then?'

'So he says—for of course I spoke to him. He does not know where he is going to, or whether he will return to Kingshope or not. I said it wasn't fair to his friends to vanish from amongst them without a hint, or giving them a chance to express their regret at losing him. He said it was a way he had of making up his mind suddenly and acting on its decision instantly. He hoped, however, to have the pleasure of seeing me again. With that he shook hands and bustled into the hotel before it came into my head to ask him if he knew Mr Shield.'

'How could he know him?' muttered Philip a little impatiently, for this episode interrupted the account of Wrentham's endeavours to obtain a reply from his uncle as to whether or not he would consent to see him on the following day.

'Don't know how exactly; but there are lots of ways in which they might have met. Beecham has travelled a bit in all sorts of odd corners of the earth. Anyhow, I think they know each other.'

'Well, well, that is no business of ours.—Did you see Mr Shield at last?'

'No; but I got this message from him with his compliments. He regretted that he could not see me, but the letter should have immediate attention.'

'That is satisfactory,' said Philip, relieved.

Wrentham looked at him critically, as if he had been a horse on which a heavy bet depended.

'You are easily satisfied,' he observed with a light laugh; but the sound was not pleasing to the ears of the listener. 'Before being satisfied, I should like to have his answer to your note, for everything goes to the dogs if he declines to come down handsome.'

'He will not refuse: he is pledged to it. But it is horrible to have to apply to him so soon.'

'Ah, yes; it is nasty having to ask a favour. What do you mean to do if he should say "No" plump, or make some excuse?—which comes to the same thing, and is more unpleasant, because it kind of holds you under the obligation without granting you the favour.'

'I don't know,' answered Philip rising and walking up and down the room uneasily.

'Well, I have a notion,' said Wrentham slowly, as he drew his hand over his chin; 'but it seems scarcely worth mentioning, as it would take the form of advice, and you don't care about my advice, or you wouldn't be in this mess. . . . I beg your pardon: 'pon my honour, I didn't mean to say anything that would hurt you.'

'What were you going to say?' was Philip's abrupt response.

'I was going to say that you ought to find out what Beecham has to do with him. Of course I have been pretty chummy with the old boy; but I never could get behind his eyes. You can learn what he is up to without any trouble.'

'Me!—how?'

'By asking Miss Heathcote.'

'Miss Heathcote! What nonsense you are talking. She knows no more about the man than I do.'

'Oh!—There was a most provoking tone of

amused surprise in this exclamation.—'You think so?'

'I am sure of it.'

Wrentham, resting his elbows on the table and his chin on his thumbs, whilst the tips of his fingers touched in front, stared at him seriously.

'Then you don't know what friends they are?—that they have been meeting daily—that they correspond?'

Philip did not immediately catch the significance of voice and manner, he was so much occupied with other matters.

'I daresay, I daresay,' was the abstracted answer; 'he is always wandering about, and they like him at Willowmere. . . . Do you think we can manage to prepare the full statement of accounts by the morning?'

The mention of accounts did not please Wrentham. He jerked his head back with the grand air of one who, being accustomed to deal with large totals, could not think of giving his mind to petty details.

'Oh, well, if you don't mind, I have nothing more to say. As to the accounts, I don't see what you want more than your books. They are made up, and the totals will be quite enough for Mr Shield. They are what, as you know, I always expected them to be—most confoundedly on the wrong side. I warned you!—'

'Yes, yes; I know you warned me, and others warned me, and the thing has turned out as bad as you croakers could wish. That is due to my mismanagement—to a blunder I have made somewhere, not to any weakness in the principle of my scheme. Taking the position as it is, I want to find out where I have blundered.—I do not mean to give in, and will go on as hard as ever, if we can only tide over the present mess.'

'That's right enough,' ejaculated Wrentham with an outburst of good-natured admiration; 'but in the meanwhile, the first thing to do is to get over the mess.'

'Ay, how to do that,' muttered Philip still marching up and down.

'The shortest way is to make sure that Mr Shield's mind is not prejudiced against you and your work at the same time.'

'Oh, stuff. Who wants to prejudice him against me?'

'I say, find out what Beecham is after. Maybe he is your friend: in that case, so much the better; and if he is not, then you will be able to deal with him more promptly, if you have discovered his trick in time. Ask Miss Heathcote about him. She ought to tell you all she knows.'

Philip halted, head bowed, eyes fixed on the floor, and the words buzzing through his brain—'She ought to tell me all she knows.' Certainly she ought, and would. Then, for the first time, there seemed to reach his ears as from a distance the voices he had heard behind him at the 'dancing beeches,' and he recalled Madge's agitated face as she told him that she had been intrusted by this man with a secret which she must not at present share with him. He had disapproved of her conduct at the time; he disapproved of it still more strongly now, although he regarded it as nothing more than a mistake

into which she had been betrayed by her sympathetic heart.

'Very well,' he said sharply, 'I shall ask Miss Heathcote what she knows about him. What then?'

'Why, then we shall know where we are,' Wrentham answered gaily. 'To be sure, if you receive a message from Mr Shield to-morrow morning that it is all right, there will be no necessity to trouble Miss Heathcote.'

It was one of the anomalies of his association with Wrentham—or one of the effects of the weakness—the strain upon his nerves had produced—that Philip was influenced by him on those very points on which he would have least expected himself to be subject to influence by any one. It is true that whilst he had been all along aware of his manager's want of sympathy with his work, he had discovered no reason to suspect his honesty—and this might account for the anomaly.

So, it was Wrentham who had persuaded him that the time had come to apply to Mr Shield for assistance at a critical juncture in his speculation; and it was Wrentham who persuaded him that he ought to learn from Madge the nature of the secret confided to her by Beecham.

'He won't think much more about the accounts to-night,' Wrentham was saying mentally as he went down-stairs. And his step was not so jaunty as usual when he got into the street.

MUSHROOMS FOR THE MILLION.

Is there any one in England who does not esteem mushrooms as delicious esculents? Their flavour commends them to most palates, and their value as food is quite on a par with many other vegetables. Few of the other varieties of edible funguses are approved of by English people, partly through ignorance and prejudice. Yet in many countries in Europe, about thirty kinds, closely allied to the mushroom in flavour and excellence, form the chief diet for thousands of the peasants during the summer months, either fresh from the meadows or preserved in vinegar and oil.

We may, then, be very thankful to any one who instructs us how to grow mushrooms so that they may be as plentiful as cabbages, and within the reach of any cottager who has a garden and can buy a load of manure. A very practical little treatise on Mushroom-growing has been published by Mr Wright (price one shilling) at the office of the *Journal of Horticulture*, 171 Fleet Street, London, from which we propose to give a slight sketch of his plan, recommending the purchase of the work to those who desire to follow out his directions. It would seem to be a most profitable investment in these days, when the farmers have so much reason for complaint, as the remuneration far exceeds that of any other vegetable. Fruit-crops as well as vegetables are seriously affected by winter-cold, high winds, and spring frosts; and from twenty to forty pounds an acre is an average value of the profits arising from either. In Cornwall and Devonshire, the early potatoes and valuable fruits

may give from one to two hundred pounds an acre, but this is very exceptional. Yet mushroom-growing exceeds even this profit.

We will turn now to Mr Wright's actual calculation, founded on the well-ascertained fact, that a mushroom-bed two and a half feet wide and one yard long, and situated in the open air, yields produce of the value of fifteen shillings, and that the cost of production is five shillings per yard. There have been seasons when the price was very high and an extraordinary crop produced, the returns having amounted to forty-five shillings the yard. The average price to be got in London is one shilling per pound-weight. Take the width of the beds at two feet and a half, with five feet of space between each bed, which is necessary for moving freely between the beds. There are four thousand eight hundred and forty square yards in an acre, which would allow of nineteen hundred and thirty-six yards for beds; these, at fifteen shillings a yard, give a profit of fourteen hundred and fifty-two pounds; from which deduct rent, eighteen pounds, and cost of production at five shillings a yard—leaving the very profitable balance of nine hundred and fifty pounds. The purchase of the spawn, if not grown on the ground, would be an additional cost of one shilling a yard. From October to July, seven thousand pounds-weight were really despatched to market from a length of five hundred yards, and sold for three hundred and sixty-seven pounds, besides the ketchup that was made from the overgrown specimens.

The next question is, how to grow this valuable article of commerce. First of all, the stable-manure (used as a basis) must be of the best kind, to which oak or beech leaves may be added, as they induce a steady heat; but the large soft leaves of the sycamore, &c., are unsuitable. A slight sprinkling of tan, with a very small quantity of salt and guano, may be advantageous; an ounce of each to a barrowful of the material will be sufficient. However, many successful growers use none of these things, but depend entirely on well-prepared manure and good spawn.

The best time for beginners to prepare their beds is towards the end of July or in August. In three weeks the manure will be ready for forming into ridges; in another week, spawn may be inserted. Eight weeks after, the mushrooms will appear, and continue bearing for three months. Now for the preparation. Take the manure as it comes from the stalls, the greater part consisting of straw more or less discoloured. When on the ground, fork it over, casting aside the long clean straw only; the remainder, forming a mixture of half and half, should be mixed and piled into a heap, as if for a hotbed for a frame. Very little water, if any, will be needed. In four or six days the fermentation should be in full force and the mass hot. The work of turning and purifying now begins. Every lock of straw and flake of manure must be separated and thoroughly incorporated, the outsides being placed in the centre. From four to six turnings on alternate days are necessary. Thus the mass is sweetened and the straw broken with the least possible loss of ammonia. A little practice will guide to the knowledge of when the beds are in a right

condition; the appearance and the smell form the best indications. There should be an inseparable mass of straw and manure, a slightly greasy tinge, and a warm brown colour. A lump drawn from the interior should not smell offensively, but possess a pungent and somewhat agreeable scent, with a slight odour of mushrooms. If these features are not present, another turning is required. Texture, heat, purity, and moisture, are the four important requisites—sufficiently moist to be pressed into a mass, and yet not a drop of water to be squeezed from it.

The site for the bed is the next consideration. Shelter from cold winds is a great advantage; a garden-wall to the north and a hedge on the south is the best position; but by the use of wattled hurdles, admirable results have been obtained. The sheltered nook of any garden or homestead may be better used for this purpose than for any other kind of produce. If the soil be good in quality, it is well to remove it where the beds are to be made to the depth of several inches, and place it on a heap, to be laid afterwards on the top of the beds. The excavations can be filled with rubble, which insures a dry foundation, as water should never accumulate on the surface. As mentioned previously, the beds should be two feet and a half wide at the base, six inches at the top, and two feet and a half high. At this angle, the soil will adhere to the sides, and much of the rain will pass off freely. But where the rainfall is great, they must be protected with canvas coverings over the straw at the top. A couple of sticks a yard long will prove an easy guide to the form. Insert them two and a half feet apart, and draw the tops to within six inches of each other, and there is the outline of the bed. Soon, however, a line will only be needed; the eye can do all the rest. Larger beds may be made; but let the sides be as steep as possible, firm, and smooth, that the rain may not penetrate. In addition to its being heavily beaten with forks, it must be twice trodden down—once at the depth of eighteen inches, and again when three feet high. The appearance will be that of a thatched roof in miniature, and is quite a work of art for smoothness and outline. To prevent the bed drying in the centre, holes should be bored with an iron bar, about ten inches apart, along the ridge to the bottom of the bed, and a few sticks put in afterwards, to indicate the temperature.

There are many varieties of mushroom seed, or spawn, as it is termed. Large quantities are imported from France, where it is made up in flakes, instead of bricks, as with us. Good virgin spawn made up in bricks is decidedly the best, but the price is as high as two guineas a bushel. Mr Veitch, King's Road, Chelsea, or Mr Barter, Harrow Road, London, and many others, may be relied on for the small quantity which would be required for a beginner. The lumps are nine inches long and six wide; sixteen of them make a bushel. They are composed of soil and manure. When partially dried, the spawn is inserted, and under a genial heat it penetrates the entire mass. Kept cool and dry, the vitality lasts for years. A good mushroom brick when broken should resemble a mass of silvery cobwebs. In growing these esculents for the market, it is most advantageous to use the spawn liberally and in large

lumps. A brick may be divided into eight parts, and inserted about nine inches apart, level with the surface of the ridges. Holes should not be made, but the manure held up with the left hand, the lump pushed in with the right; there are then no interstices for the accumulation of steam, which is fatal to the mycelium. The time for sowing is when the heat of the bed is decreasing, but has not fallen below eighty degrees an inch below the surface.

If the bed be in the right condition, the spawn will begin to spread in three days, after which the top layer may be covered with soil. A little litter may cover the bed previously, if the heat requires it. The kind of soil is not an unimportant matter, and strong turfy loam yields the best produce, such as a gardener would use for growing chrysanthemums and roses. From this, mushrooms are frequently cut weighing half a pound. These are termed 'broilers,' and are much in demand in the foreign hotels in London. The top layer from a pasture in which buttercups rather than daisies are plentiful, forms an excellent soil. It may even be enriched with bone-meal, if light and sandy, but on no account with ordinary manure, as some unwelcome fungi might spring up. The thickness of this covering of soil must be from one to two inches. It may be slightly moistened before putting on, not after, lest dry fissures should form and the heat escape. The whole should be made firm and smooth, but not plastered like a cement floor. The temperature of September is a guide to the heat required to be kept up, as that is the month when mushrooms grow naturally in the open air. An average of fifty-eight degrees must be considered the highest, but they will be found among the grass meadows as low as forty-seven degrees. On a mild day in January, a bed was beginning to bear largely in the open air under a layer of straw nine inches thick. Cold does no real injury to mushroom beds; it only stops their growth, but does not destroy the spawn. They may even be frozen through, and yet, when the spring melts the frost, they will bear. Too high a temperature is much more destructive, and the cause of many failures.

After all this preparation is made, the routine of management consists in maintaining the beds at an equable temperature, watering them at the right time, and gathering the crops. Sufficient straw has been shaken from the manure when first brought in to cover the beds; it is the best that can be used, and when dry, its peculiar nature seems to agree with the mushrooms better than clean sweet straw or hay. If the weather be mild, six inches of litter will suffice; whilst during a prolonged frost, two feet or more, with mats, canvas, or some such material, will be required. The proper temperature can be determined by the hand; if there is the slightest warmth felt when placed on the soil under the straw, that is right; or if the thermometer be laid there at night and has risen to fifty degrees in the morning.

During fine weather in summer, autumn, and spring, the beds require frequent watering. The soil should never become dry, and the time chosen must be early in the afternoon on a sunny day. The covering on the beds will then be warm; and on this—not under it—water must be

sprinkled in sufficient quantity to percolate through and gradually moisten the soil. Immediately after, the beds must be covered with mats, to prevent the evaporation, and the vapour that will be generated will result in a warm, humid atmosphere, so suitable for the growth of mushrooms. The mats may be removed in the morning. Beginners should endeavour to have beds beginning to bear in April or October; they are not profitable after June, as, owing to the nitrogen they contain, mushrooms speedily decay in hot weather, and become very indigestible.

When the beds are partially exhausted by continuous bearing, a free application of liquid manure, heated to a hundred degrees, may be given, and one or two ounces of salt added to each gallon. It is a well-known fact that sowing salt over grass and pastureland often produces an enormous crop of mushrooms, whilst on other parts of the same land not one is to be found. In a small farm the author is acquainted with, mushrooms grow abundantly among the potato and turnip crops, whilst none are found in the neighbourhood; the only difference being that the farmer sowed two hundredweight of salt per acre every year. Of course, the spawn is there, but the salt develops its growth.

After all this preparation, the pleasant time of gathering the crop will come; and here knowledge and care are alike requisite. The old plan was to cut off the mushroom above the soil; now, it is pulled by hand, and if the stump be left close to the surface, it is at once scooped out with a knife, leaving a round cavity as large as a walnut. This plan increases the productiveness of the beds; for if the threads of the mycelium are not broken, they expend their strength in masses of mould or fungus. On the other hand, when scooped out, small tubercles form, and develop into mushrooms, a fine ring appearing round each cavity. When gathering, a small portion only of the bed should be uncovered, especially in cold weather, and re-covered as quickly as possible. It is not unusual for nine or ten pounds to be gathered at once; and in the case of young beds, the crop may be cleared off twice a week. As a rule, a good bed will yield ten gatherings—seven large, the first and last two lighter. It is well to separate them into two baskets, if intended for the market—one for buttons and cups, the other for broilers, as it saves time at the weighing-table. The stems should always be retained, as the mushrooms keep sound for a much longer period. To the salesman, the packing is of consequence. One pound is put into each punnet—the baskets which every one knows, made of shavings. But few are aware what a large trade there is in these little articles, or where they are made. It is to Brentford or Hammersmith that we must go to see the juvenile population busy at work making these cheap and useful articles. They are sold in rolls of three dozens, of different sizes—'deep pounds' and 'flat pounds,' which may be bought for from four to six shillings the gross of Mr Nicholls, 377 Goldhawk Road, Hammersmith. After the loose soil has been taken from the stems, the mushrooms are neatly packed and tied down with raffia, the best and cheapest tying material, and then placed in wooden packing-cases for transmission to towns. Everywhere, in large centres, the greengrocers are glad to receive them,

as the demand is greater than the supply, the price varying from one shilling to two shillings the pound from October to June.

Whenever the supply is too large, good unadulterated ketchup finds a ready market, and mushroom-growing is profitable if only for the juice alone. What is now sold as mushroom ketchup is rarely pure, bullocks' liver being one of the usual component parts. The spent beds are most valuable for manure for the land or for potting the higher class of plants, and are by no means exhausted. The manure often lies for months during decomposition before it is fit for the land. Why should not this be utilised? It is a most suitable investment for market-gardeners who are not far from a town, and for cottagers who hold a few acres, keeping one or two horses and cows. If they can make poultry pay, much more mushrooms. Clergymen and professional men are not unwilling to add something to their income, and might do much in their parishes to improve the condition of the working-classes by thus making use of what too often lies wasting in the farmyards.

This is but a sketch of Mr Wright's little book, which should be in the possession of all who intend to be mushroom-growers.

A YARN OF THE P. AND O.

As there were but very few passengers on board the Peninsular and Oriental steamer *Scyllia*, outward bound for the Far East, we did not anticipate the usual amount of fun and festivity which are, strangely enough, more remarkable features of life on outward-bound than on homeward-bound steamers. But what we missed in frolic we certainly had made up to us in the shape of excitement. We numbered about a dozen in all; but of these, three only need individual description.

The principal personage, in accordance with the ancient dictum that a woman is at the bottom of everything, was a pretty young widow, a Londoner, who was on her way to join her friends living in Shanghai. The worship of the fair sex is nowhere more ardent than aboard ship, partly, perhaps, because its members contrive to put on under such exceptional circumstances their most captivating airs and graces; and chiefly, it must be admitted, although the admission is ungallant, because, beyond eating and sleeping, there is little else to do than to offer homage to whatever goddess presents herself. Hence Mrs Fuller, as she was named, reigned sole and unapproached monarch of the ship. Had she been other than she was, she would have occupied this position; but being tall and fair and graceful, she assuredly merited every tribute of admiration laid at her feet. The darts she unconsciously shot around fixed themselves most firmly in the hearts of the remaining members of the prominent trio to be described. The first was a young Englishman named Goodhew, going out to the consular service in Yedo; the other was a young Irishman named MacWhirter, going to the same city in the Japanese government Telegraph Department. Goodhew was as typical an Englishman as was MacWhirter a typical Irishman, indeed, more so, for Mac was a victim to a most

un-Milesian failing—he could not take a joke. Goodhew was a big, broad-shouldered, ruddy-faced, blue-eyed, fair-haired fellow, who ate like an alderman, was always laughing when he was not eating or sleeping, and was half the life and soul of our little community. Terence Mac-Whirter was the other half. He could sing a capital song and tell a capital story, his story-telling powers eclipsing his song-singing, inasmuch as with the gravest conceivable demeanour he would endeavour to foist upon us the most palpable fiction as the most solemn truth. 'As true as o'i'm standing here,' was a concluding phrase of his, which soon became a catchword on board, and synonymous with what was most extravagant and improbable.

The apple of discord which the fair Londoner was destined to throw amongst us fell between Goodhew and Mac, who, long before she joined us at Brindisi, had singled out each other as opponents upon the one particular question of belief or disbelief in ghosts. Strangely enough, Goodhew, who had won the Humane Society's medal for saving life, was a firm believer in the theory that the departed from this life revisit their old haunts. Equally strange was it that Mac, although a fervid, imaginative Irishman, pooh-poohed ghosts and omens and visions and dreams and second-sight as being unworthy of the consideration of a practical nineteenth-century human being; and the more instances Goodhew quoted in support of his creed, the more violently would Mac exclaim: 'Now, look ye here, Mister Goodhew; o'i'll stand the man an unlimited dinner up to a couple of sovereigns who can prove that he has ever seen a ghost; an' if a man can show me a ghost, bedad, o'i'll show him what o'i'll do wid it!'

The arguing matches and disputes between the two opponents formed our principal amusement during the tedious passage from Southampton to Brindisi. Then Mrs Fuller came on board, and their antagonism assumed a new shape. Goodhew helped her on board. Score No. 1 for the Englishman. But Mac lent her his cane-chair, and equalised matters. Goodhew sat next to her at table; but Mac sat opposite, which was as good, for in talking to her, he was obliged to raise his voice, and by so doing obtained a monopoly of the conversation. To her credit it must be said that she behaved exactly as a young lady placed in such peculiar circumstances should behave. She showed no partiality to one more than to the other. She laughed heartily at Mac's jokes, and listened attentively to Goodhew's quiet common-sense and common-places. If one of them gained a trifling advantage one day, it was made up to the other the next; and so, whilst conscientiously she believed she was pleasing both, in reality she was stirring up a fire between the two which was fated ultimately to burst into a tragedy.

So matters went on. By the time Alexandria was reached, we, the audience, agreed that Goodhew held a slight advantage, inasmuch as the passage across the Mediterranean having been stormy, poor Mac spent the greater part of his time in his berth; whilst Goodhew, who was a good sailor, was brought into uninterrupted contact with Mrs Fuller, who was also *mal-de-mer* proof.

It may be imagined that when we were sick of quoits and 'bull-board' and deck-cricket and walking-races, the little comedy played by the trio formed our chief amusement. Its ups and downs, its various phases, its situations, were subjects of attentive watchfulness on our part. We were like a party of special correspondents taking notes of an important campaign. We received from one another news of victory or defeat, of attacks foiled, of successful stratagems, of bold strokes, of new moves, with as much earnestness as if our own interests were at stake with the issue of the contest. If one of us hurried forward with a joyful face, it was not to tell of a confident prophecy on the part of the skipper that we should have an easy time in the monsoon, or that we should make Aden ahead of schedule-time; but to relate some splendid stroke on the part of Mac, or an admirable counter delivered by Goodhew. Occasionally, there were uninteresting lulls in the conflict, and during these periods we were driven to our wits' end for amusement, and the time passed slowly and heavily; but when the battle was in full swing, the long hours of the tropical day sped but too quickly. Our doctor took an especial interest in the drama, and by virtue of his official position, was enabled to see far more of its ins and outs and by-play than we outsiders, and often when matters seemed to slacken a bit, would infuse fresh life and fire by some adroit, mischievous remark.

Open hostility soon became the order of the day between Mac and Goodhew. Hitherto, they had been simply cold and distant to one another, interlarding their conversation profusely with 'Sirs' and 'I beg your pardons;' but by the time we reached Penang, they were hardly civil to each other. The climax was reached at Penang. According to the usual custom, a party was made up to visit the celebrated waterfall. Most of us went: Skipper, Doctor, Mrs Fuller, Goodhew, Mac, and half a dozen of us outsiders. We arrived at the waterfall after the well-known broiling ascent, rhapsodised over it, sketched the joss-house, partook of a sumptuous tiffin beneath its roof, and were about to return to the quay, when Mrs Fuller espied a dead buzzard floating in the waters of the pool. 'Oh, how I should like a few feathers from that beautiful bird!' she exclaimed.

Mac and Goodhew rushed to execute the commission. We outsiders never dreamed of interference, as we foresaw an important scene in the drama. Mac was armed with his walking-stick, Goodhew had seized a long bamboo stem. Mac was upon one side of the pool, Goodhew on the other, and the buzzard floated in the middle between them.

The faces and figures of the two men were perfect studies of sternness and resolution; they stretched and craned, they knelt, they floundered, they hopped up and jumped down; for the time-being the entire universe of each of them was concentrated in that palm-shaded pool. But the bird stuck resolutely in the middle, in spite of coaxing and flopping and all sorts of cunning endeavours to waft it to one side or the other. Suddenly a puff of wind carried it towards Mac. His face lighted up with joy, and he uttered a smothered 'Hooroo!' In a moment his walking-

stick was under it, he was slowly but surely pulling it towards him; when there was a vision of a sort of fishing-rod in mid-air, a momentary struggle and splash, and Goodhew triumphantly dragged it towards him. Mac made a desperate dash at the retreating spoil, missed his footing, and fell plump into the pool. Our long-restrained feelings were no more to be kept in, and the laughter which followed awakened the echoes of the solitary Penang waterfall. To emerge from the water, hatless, dripping, and vanquished, was humiliating enough for poor Mac; but when he looked at Mrs Fuller, and saw that she was endeavouring to stifle immoderate laughter with her pocket-handkerchief, his cup of misery was full, and without another word, he strode off ahead of us on the path leading to the Settlement, and was soon lost to view.

We sailed that evening for Singapore. Mac was not visible. Next evening, however, as we were sitting on deck after dinner smoking our cigars and gazing at the peerless panorama of the tropical heavens, we saw him come on deck. We hushed our talk, for we felt that something was pending. Goodhew was sitting by Mrs Fuller's chair—that is, poor Mac's chair—at some distance from us. Mac seeing this, strode up and down the deck behind them. Presently, Mrs Fuller rose, wished us good-night, and disappeared below. We nudged one another, watched round the corners of our eyes, and listened.

Mac strode up to Goodhew, who was approaching us. 'Mister Goodhew,' he said, 'oi call that a dirty mane trick!'

'What do you mean, sir?' angrily retorted Goodhew, stopping short.

'Oi mane what oi say, sir,' said Mac. 'It was a dirty mane trick. Mrs Fuller asked me to get the bird for her, and oi got it; and you come in with a pole like a mast, and you fish it out under me very eyes!'

'Under your very stick, you mean, Mac,' said Goodhew, laughing.

'No matter what oi mane!' exclaimed the infuriated Irishman. 'Oi mane, that when one gentleman receives a commission from a lady, and another gentleman executes it by a mane trick, the other gentleman's no gentleman at all at all—but a cad, Mister Goodhew, a cad!'

'I say, Mac, draw it mild,' said Goodhew, in his turn irritated; 'we're not all bogtrotters here!'

'Is it bogtrotter ye're callin' me!' exclaimed Mac in a frenzy. 'Bedad, oi'll tache ye to call a MacWhirter a bogtrotter, ye spalpeen!' And he sprang at Goodhew furiously.

Goodhew seized him by the waist, and in another minute would have certainly dropped Mac overboard, had we not all jumped up and interposed. Mac danced and kicked and struggled and used every vilifying expression he could. Goodhew also was endeavouring to wrest himself from our grasp; but we held on, and the opponents seeing that they could not get at each other, gradually desisted from trying.

'Doctor!' said Mac, after a breathing-space, 'this is an affair for immediate settlement.'

'Pooh! my dear fellow,' said the officer, 'who can fight duels on the deck of a P. and

O. steamer? Better wait till we get to Hong-kong; there's plenty of room there.'

'Hong-kong be it then,' said Mac. 'Mister Goodhew, oi'll send ye me card in the morning.'

'All right, Mac,' replied Goodhew, who was recovering his good temper. 'Send as many as you like. But don't you think we're a couple of fools, to be going on in this absurd way about a trifle?'

'A trifle ye call it?' roared Mac. 'An' if there's a fool hereabouts, it isn't Terence MacWhirter; but ye needn't travel very far to find him.'

The doctor whispered in Goodhew's ear. The latter nodded and smiled, and said: 'All right, Mac. You challenge me to a duel. I accept it. Pistols?'

'Of coorse,' replied Mac. 'Ye didn't think oi mane fishing-rods? Insulting a MacWhirter's no trifle, oi tell ye.'

So they separated.

It may be imagined that the chief topic on board during the interval between Singapore and Hong-kong was the approaching duel. Mac had given out more than once that he was no novice; and he certainly had shown himself a dead-shot with a rook-rifle at bottles or pieces of wood; but whether, considering the extreme excitability of his nature, he would preserve his calmness on the field of battle sufficiently to make any use of his accomplishment, we were inclined to doubt. Goodhew had never fired a pistol in his life; but there was an easy, calm confidence about him that foretold no want of nerve on his part.

'Pat,' said the doctor, on the evening before our arrival at Hong-kong, 'haven't you a qualm of conscience about going to shoot this poor fellow?'

'Faith, doctor,' replied Mac, 'the odds are even. If he wins the toss, he shoots me.'

'You're not afraid of the consequences of manslaughter?' continued the doctor. 'I don't mean the judicial consequences, but the remorse, the fear of being haunted.'

'Doctor,' said Mac, 'oi took ye for the only sensible man on the ship, and ye go and talk blarney about haunting and all that. Oi tell ye, doctor, oi'm not a believer in spirits; and if oi kill Goodhew, and his ghost makes a pother about me afterwards, oi'll have to settle him as well. Look ye, doctor, ye and the whole lot of 'em want to get me off this duel; but oi've been insulted; and if oi put up with it, oi'll not be worthy of the name of MacWhirter at all at all.'

The next evening we steamed into Hong-kong harbour. Mrs Fuller was on deck, admiring the effects of the great mountain shadows upon the moonlit water, and of the innumerable twinkling lights from the shore, which mount up and up until they seem to mingle with the stars.

Mac was standing by her chair. 'Mrs Fuller,' he said, in a low impressive voice, 'this is a beauteous scene. It reminds me of Doblin Bay or the Cove of Cark. It is a sad scene.'

'A sad scene, Mr MacWhirter!' said Mrs Fuller. 'Why, I was just thinking it was a gay scene, with all those lights, and—'

'It is a sad scene for those who are looking

at it for the last toime, Mrs Fuller,' said Mac in an almost sepulchral tone.

'Gracious! Mr MacWhirter, what do you mean?' asked Mrs Fuller. 'What a dreadfully uncomfortable thing to say!'

'Oi mane, Mrs Fuller,' replied Mac, 'that this toime to-morrow noight there'll be one less passenger on board the *Sicilia*.'

'Why, of course, Mr MacWhirter; for I suppose our little company will be broken up here, and it is never pleasant separating from kind friends.'

'Ye mistake me,' said Mac. 'The moon that will shine to-morrow noight will look upon the corpse of either Mister Goodhew or of Terence MacWhirter; and it'll be all for the sake of yerself, Mrs Fuller.'

Mrs Fuller saw that Mac was serious, and the idea flashed across her mind that the two rivals for her hand were about to fight a duel on her account, so she resolved to take the earliest opportunity of speaking to the captain about it.

She did speak to the captain, who spoke certain words to her in return.

Very early the next morning, before even the sun had peered round the corner of the Victoria Peak, the captain's gig put off from the *Sicilia*. In it were the captain himself, the doctor, Goodhew, Mac, and we outsiders. We were soon alongside the Bund, and in a few seconds were being whisked away in the direction of the Happy Valley as fast as chairmen could take us. We went swiftly by the cemetery gate and the Grand Stand to the extreme end of the Valley, where there was no chance of interruption.

After each of the combatants had been armed with one of the captain's pistols, the doctor measured fifteen paces. The coin was spun into the air. Mac won the toss, and took up his position, as did Goodhew.

'Captain,' said Goodhew, 'if—if I fall, you'll find a memorandum as to the disposition of my property in a tin box in my cabin. Here's the key.'

'At the word Three,' said the captain, 'Mr MacWhirter will fire.'

Mac raised his pistol, half closed his left eye, and took aim.

'One! Two! Three!'

He fired. Goodhew, with a cry, pressed his hands to his head, and then fell like a stone with one deep groan. The red stain on the right temple told Mac the fatal truth. The Irishman's vaunts and threats had been justified.

'You've done it, Mac!' whispered the captain in a voice of agony. 'Come away as fast as you can. The doctor will attend to the poor fellow, if life still remains.'

And so Mac and the captain hastened away, leaving Goodhew on the ground, with us gathered around him.

As we were to shift over to the smaller steamer which was to convey us to Yokohama the next day, and were to bid farewell to Mrs Fuller and the captain and the old *Sicilia*, the banquet that evening was of an unusually lavish description: the champagne went merrily round with jest and gibe, as if there had never been such a being as poor Goodhew in existence. Even Mac aroused himself after a few glasses, although at first

he was rather solemn, and remarked: 'Ye're a rum lot, all of ye. If oi'd been killed instead of Mister Goodhew, ye'd have enjoyed your dinner and drink all the same. Oi'm sorry for him; but it'll be a lesson to Sassanachs not to insult Oirishmen.'

Then Mrs Fuller's health was drunk, and the captain's, and every one else's, and not until a small-hour of the morning did we think of breaking up.

'I say, Mac,' said the doctor, 'aren't you afraid of seeing poor Goodhew to-night?'

'Whisht, doctor; ye've taken more than's good for ye!' was the contemptuous reply.

As the ship's bell tolled two o'clock, we prepared to turn into bed, when the saloon door opened quietly, and a tall figure, ghastly white, with a crimson patch on its face, glided a few inches in. Mac was seated next to the door, and saw it. His cigar fell from his fingers, beads of perspiration burst upon his forehead, and he trembled violently.

'What on earth is the matter, Mac?' we asked.

'Why!—Don't ye see? There, at the door!—Him! Mister Goodhew!' stammered Mac.

'Nonsense, man; you're dreaming. There's nobody there at all!' we said.

'Strikes me you've had a drop too much, Mac,' said the doctor, quietly.

The figure still stood there with its eyes fixed on Mac, who, after remaining for a few moments petrified with horror, rushed with a shriek into his cabin.

Such a night as the poor fellow passed will never be known to any one but himself, although it was manifest that he was undergoing extreme agony by the groans and smothered cries which we heard for a long time after he had turned in. He was not visible at breakfast the next morning; nothing was seen of him during the process of transferring passengers, mails, and baggage from the *Sicilia* to the Yokohama steamer; and we began to fear that the poor fellow had really been affected by what he had seen, and had taken some rash step. However, about an hour before our starting-time, it was reported that Mac had come on board. There was a festive assembly in the saloon, the captain, doctor, and officers of the *Sicilia* being our guests, although an unusual spruceness in the general costume proclaimed that the affair was something more than a mere return of the compliment paid us by the captain of the *Sicilia* on the previous evening.

The doctor had risen to his feet, was clearing his throat preparatory to an important speech, when the saloon door was pushed open, and Mac looked in—not the careless, swaggering Mac of past days, but Mac haggard, weird, scarcely human, with unkempt locks and bloodshot eyes. Goodhew was seated next to the pretty Londoner. 'Hillo, Mac, old fellow; come in, come in; you're just in time,' he said.

'By the powers!' exclaimed Mac, 'ye're not dead, Mister Goodhew!'

'No, old fellow,' replied Goodhew, with a laugh. 'But if your pistol had carried a bullet, I should have been.'

'But the blood on your forehead—I saw it!' cried Mac.—'And Mrs Fuller—she's wid ye, I see!'

'No, no, Mac; wrong this time,' returned Goodhew, smiling. 'There was no blood on my forehead; and it isn't Mrs Fuller that's beside me.'

'Whisht, man! I'm not darning now; I know what I'm talking about,' exclaimed Mac. 'D'ye mane that there was no blood on your forehead after I'd hit ye, and d'ye mane that it isn't Mrs Fuller alongside of ye at all?'

'Yes, old fellow,' said Goodhew, rising, and stretching out his hand to the bewildered Irishman. 'The mark on my forehead was only a little red paint carried in the palm of my hand, and ready to be slapped on the moment you discharged your deadly weapon; and the lady'—

'Yes, yes, the lady?' interposed Mac with eagerness.

'The lady was made Mrs Goodhew about a couple of hours back,' calmly replied the Englishman. 'Give us your hand, and drink our healths.'

Mac did both, and ever after remained a firm friend of Goodhew's, although always a little touchy on the subject of ghosts.

SEALS AND SEAL-HUNTING IN SHETLAND.

IN TWO PARTS.—PART II.*

A RELATIVE of mine, now dead, used to be a mighty seal-hunter. It was before the days of the modern 'arms of precision,' long before breech-loaders were in common use, and even before the Enfield or Minié rifles were invented. In those days, the old muzzle-loading rifle was found to be not a trustworthy weapon; he therefore used a very thick metalled fowling-piece, which was deadly up to sixty or eighty yards. He had a splendid boat, which he named the *Haff-fish*, about seventeen feet of keel, a capital sea-boat, equally good for sailing and rowing, safe, therefore, in bad weather and rough sea, and at the same time handy to manage when rapid movements might be required, such as landing in narrow creeks, or on slippery shelving rocks, or shallow beaches with a surf on. His crew was composed of four picked men from amongst his fishermen tenants, and his henchman, who was as much friend and adviser as servant, a man of great natural sagacity, intelligence, and fertility of resource, and of prodigious bodily strength; all of them first-class boatmen, expert pilots, familiar with every rock and reef and tideway on the coast and amongst the islands, and withal steady, bright, intelligent fellows. Master and men, all save one, gone now! With this crew, my uncle was wont to start on his seal-hunting expeditions. He would be absent for a week, sometimes more, if the weather should turn out unfavourable; for the distance from his residence to the haunts of the seals was considerable. The first day would be spent amongst the nearest islands; and in the evening he would land, and spend the night in the hospitable mansion of one of his brother lairds, where he was always a welcome guest, his boatmen at the same time making good their quarters at very small cost in the nearest fishermen's cottages. Next day, and each day while the expedition lasted, he would explore new hunting-ground,

spending the nights at some other friends' houses; and so he would hunt all the islands in Blummel Sound and Yell Sound, the Holms of Gloop, the Neeps of Gravaland, the long line of precipitous coast on the west side of Roonees Hill, the Ramna Stacks, and even the distant Vee Skerries, and other places well known as the principal haunts of the seal. Sometimes, of course, the weather, always fickle in those latitudes, would put a stop to all sport. Not often, but sometimes, even with the most favourable weather, he would return 'clean.' At other times he would bring back a number of very substantial trophies of his prowess. In some seasons he would bag—*boat* I should rather say—as many as forty or fifty. In ten years, during which he kept a careful record of the number he shot, he secured close upon three hundred of both species, and of various ages and sizes, besides killing a considerable number more, which sunk, and he was unable to recover. The most he shot in one day was eleven, ten of which he secured. Not a bad day's sport.

I have often heard him tell with pride the story of the most deadly shot he ever fired. The weapon was a favourite fowling-piece charged with two bullets, which occasionally wrought great havoc. A small herd of tang-fish was lying on a rock within easy range of some large boulders in the ebb, close to the water's edge, to which, with infinite labour and circumspection, my relative had crept. Very cautiously, his piece on a good rest, he took a well-calculated aim at the seals, lying close together in a particularly favourable position, and fired. The first bullet killed no fewer than three, and the second ball struck, but did not kill two others, which floundered into the water and escaped; but the other three were secured.

The most extraordinary *hour's* sport I have ever heard of was that of a young Shetlander, about three years ago. Reports of it had reached me; but they seemed so incredible, that I thought they must be exaggerated. I therefore wrote to the gentleman himself for the particulars; so I can vouch for the accuracy of what I am going to relate. I quote from his letter:

'My evening sport at Muckla Skerry was certainly a good one. I started from the Whalsay Skerries about five o'clock of an evening about the end of August or first of September 1881. When nearing the rock, I could see with a glass that it was almost covered with seals—I should say there would have been eighty or more—but all took to the water before a shot was fired, and while we were three to four hundred yards off, and were soon sporting about the boat, but keeping at a respectable distance. It had been perfectly calm for some days, and the sea was like a mirror. I fired eight shots from a short Enfield rifle with government ball cartridge. Two shots missed, and the other six secured a seal each. They were all shot in the water; and singular to say, every one floated on the surface till we took hold of it. One of them was a large fish, measuring six feet four inches long; the others would run from three and a half to five feet in length. . . . I feel certain I could have shot as many more, if we could have taken them in the boat; but the boat was only ten and a half feet keel, and I had four sturdy oatmeal-fed islanders with me, so that you can fancy how much freeboard we had when the six seals were

* Continued from No. 23, p. 364.

in our little craft. The time we were at the rock did not exceed forty minutes, and I think that half the time was expended in getting the largest seal into the boat. This was no easy matter, and attended with very considerable risk; but he was quite a prize, and we did not like to let him go.

Several things in this interesting and spirited account are, so far as I am aware, unprecedented in the annals of seal-hunting in this country. I have never known or heard of any one in so short a time and out of a single herd getting so many fair shots. When one gets amongst a lot of seals, swimming and diving around the boat, one shot is commonly all that you can hope for, and whether you kill or not, it is almost invariably sufficient to send the rest at once far beyond range. Then out of eight shots, to strike and kill with six, considering the expertness of seals in 'diving on the fire,' is, I believe, also unprecedented; and to cap all, that not one of the six should have sunk when shot, is extraordinary and unaccountable; for, as I have already said, they sink when killed in the water quite as often as they float, if not oftener. Anyhow, Mr A— had the rare good fortune to encounter a splendid opportunity, and he made a splendid use of it.

A good dog is a useful auxiliary to a seal-hunter; but he requires a good deal of training to learn his work. Very soon he acquires the art of stalking; but most dogs at first are apparently afraid to lay hold of a dead seal floating in the water, and very commonly, when sent off to fetch him ashore, simply attempt to mount on him, and in consequence do harm rather than good by helping to sink him. But generally—not always, for some dogs we never could train to do the right thing—we succeeded in teaching them to retrieve. When we had brought a seal home, we used to throw it over the jetty or out of a boat with a stout cord attached, and encourage the dog to fetch him. Great praise was bestowed when he learned to lay hold of a flipper and tow the selkie shoreward; in this way, with a little patience and perseverance, the dog soon came to learn what was required; and many a seal was secured by his help, which without it might inevitably have been lost, for a seal shot in the water from the shore, which they often were, was very generally on the opposite side of an island or long promontory, where a landing had been effected; and it took many minutes before the boat could be got round; and by that time, but for the dog, the seal might have sunk.

We tried many breeds of dogs—Newfoundland, Retriever, St Bernard, Rough water-dog, and Collie; but after all, the best seal retriever of the lot was a Collie. When he comprehended what was wanted and how to do it, he did it neatly and thoroughly. I well remember the first seal I shot. I had landed on the weather-side of a small island. A cautious reconnoitring discovered a good-sized seal 'lying up' on a detached rock. Then I commenced the stalking, closely followed by my dog. But ere I could approach within range, one of those seal-sentinels and provoking tormentors of the seal-hunter, a herring gull, set up his wild warning scream. The seal

perfectly understood what it meant, at once took the alarm, plunged into the water, and disappeared. I sprang to my feet, rushed down along a little promontory, and then crouched behind a big boulder, in hopes that selkie would show his head above water and give me a chance at him. And he did. Raising his head and neck, he took a good look shoreward; but seeing nothing to account for the gull's persistent screaming, he turned round, and raised his head preparatory to a dive. I had him well and steadily covered; now was my chance. I pulled the trigger; no splash followed, which would have meant a miss; but the *boom*—that is, the smoothing of the water by the flow of the oil—told that my bullet had taken effect. 'Fetch him, old dog! fetch him!' I cried. In an instant he plunged into the sea and swam to the seal, which I could see was floating. Neatly he dipped his head under water, seized a hind flipper, turned it over his neck, and towed him towards the shore. Passing the rock on which I stood in his way to the beach, he turned his eyes upwards for the praise and encouragement I was not, it may well be believed, backward to lavish on him. Such a look it was! I shall never forget it, instinct with the brightest intelligence, joy, pride, triumph. Indeed, I don't know whether he or his master was proudest and happiest that day. Alas, that our noble 'humble friends' should be so short-lived!

I have not shot a great many seals. They are not now, nor were they in my younger and sporting days, so numerous as they were fifty or sixty years ago, when but a very few persons here and there owned a gun, which with scarcely an exception was only the old regulation flint-lock musket. But since the invention of percussion locks, and of the splendid rifles and breech-loaders of the present day, and still more since steamers and sailing-vessels have been constantly plying amongst the islands, where formerly they never were seen, the seals have not had so peaceful a time of it; slaughter and persecution, and the inroads of modern civilisation in general, have greatly diminished their numbers; at least they are not now so frequently met with in their old haunts, from which it is probable most of them have retired, to more inaccessible and therefore safer quarters. These remarks apply only to the common seal. The Great seal was never very numerous anywhere, and there is not much chance of his wild retreats being disturbed except by an occasional hunter.

I have shot only three Great seals; but the largest one certainly I ever saw, I might have shot, but did not—dared not, I should say. Thus it happened. It was at the Holms of Gloup—some outlying rocks and skerries off the north point of the island of Yell. There is a fine hellyer here. According to the usual practice, I had landed on an abutting point or promontory at the outer entrance to the hellyer, and sent the boat inwards. If a seal happens to be in the hellyer, he plunges into the sea, swims out under water, and very generally rises up at no great distance, to see what is the cause of the disturbance and noise—for seals, as I have said, are very inquisitive as well as shy—and in this way the sportsman in ambush often gets a capital shot. As the boat went slowly inwards, the men kept

shouting and peering into the darkness, all eyes directed towards the inner beach, which was dimly visible. Presently from my perch of some twenty or thirty feet, I saw, in the clear water, what they did not see, a rushing white figure coming outwards under water. Then, not thirty yards distant, the head and neck of an enormous half-fish* rose above the surface. For time enough to have shot him five times over, he gazed at the boat, the back of his head turned towards me, and offering such a mark as I never had before or since. I covered him with the sights; my finger trembled on the trigger; I knew my weapon would not fail me. I knew I could kill him easily, and secure him too, even if he should sink, for the water was clear and shallow. But, as ill-fortune would have it, he was directly in the line between me and the boat, and I did not dare to fire. The boatmen never saw him, and of course I could make no sign. So the great ocean patriarch, having satisfied his curiosity, quietly withdrew under water.

I shall conclude with one other adventure of my seal-hunting experience. It was at the Neeps off Gravaland, on the west side of Yell. Here the coast-line is sinuous and precipitous, the cliffs in many parts being very high; and here there are many well-sheltered creeks, rather favourite haunts of the tang-fish. A cautious survey discovered twelve or twenty of them 'lying up' on a few detached rocks in one of these creeks, and of course, as usual, far beyond range from any point on the top of the cliff. To get a chance of a shot, it was necessary to scramble down to the beach and out amongst the great boulders left dry by the ebb-tide, a matter of no small difficulty, and also danger. I was accompanied by a young Englishman, who was very eager for a shot. Retiring a little from the brow of the cliff, we held a brief whispered consultation. 'Nothing for it,' I said, 'but to get down. Will you try it?'

'No,' he replied; 'I dare not. I always get giddy, looking down from great heights, and I could not possibly attempt a precipice like that. Do you really mean to venture?'

'Certainly,' I said; 'nothing venture nothing win.'

'Well, well,' rejoined he, 'you're to the manner born, and I wish you luck.'

One can't climb or descend a difficult precipice with boots, so I discarded mine, carefully charged my trusty old fowling-piece, and commenced the descent, well out of view of the seals. The task would have been no easy one at any time; but cumbered as I was with my fowling-piece, and obliged to double and twist in all directions, to avoid being seen, it was stalking under difficulties of no ordinary magnitude. After infinite toil and circumspection, I found myself about thirty feet from the bottom; but farther I was utterly unable to proceed without coming full in sight of the seals, who were as yet unaware of the proximity of danger. Continuing my downward course, they soon caught sight of me, and one

after another quietly slipped off the rocks into the water. I made my way to the beach, and crept out as far as possible amongst the great ebb-stones, behind one of which I crouched, in hopes of getting a shot at a seal swimming, for they kept bobbing up and down in the creek. At last one fellow did give me a pretty good chance, and I brought his gambols to a speedy close. To strip and plunge into the sea was the work of a minute. But before I reached him he had sunk. This was very provoking. However, nothing daunted, I returned on shore, retraced my way up the cliff, and then across a long stretch of barren moor, to the nearest fishermen's cottages at Whalfrith Voe. A boat was speedily manned by three obliging young fellows, and a pull of several miles brought us round to the creek. Having borrowed two stout pittock rods, I lashed them firmly together, and tied a ling hook to the point, and thus extemporised a capital gaff. We found the water not more than twelve or fourteen feet deep, and quite clear. I knew the exact spot where the seal had sunk; so we soon discovered him lying on the bottom, seeming not much larger than a good-sized cod, owing, I suppose, to refraction. I speedily gaffed him, and brought him to the surface. He proved to be a splendid animal, five feet nine inches in length, and very fat. The skin, a particularly fine one, I presented to my English friend; and the blubber was converted into oil, which kept our dining-room lamp burning brightly during many long nights of the succeeding winter.

SOME SACRED TREES.

THERE are few things more impressive to the thoughtful mind than the near contemplation of tall and large trees in full foliage. They are symbols of antiquity and endurance, yet also of the changes consequent on a constant renewal. Traditions gather naturally round an object which witnesses the growth and disappearance of generations. The memories of men long dead become connected with them; and the rude imagination pictures the souls of the departed as still lingering in the familiar groves, and haunting the favourite tree which sheltered them in the noonday heat and from the fury of the sudden tempest. Such fancies in untutored times naturally induced veneration for the object which inspired them, and such may have been the origin of tree-worship, which has been a prevalent form of idolatry.

In the East, the greatest veneration is paid to the Indian *Ficus religiosa*, the sacred and consecrated fig-tree or peepul-tree, which is held pre-eminently sacred by the Buddhists, and is revered also by the Hindus, the birth of Vishnu having occurred beneath its branches. It is the Rarvasit, the tree of knowledge and wisdom, the holy Bo-tree of the lamas of Tibet. It is met with in most countries of South-eastern Asia; but the descriptions of it in botanical hand-books are confused and misleading. It is a handsome tree, growing frequently to a great height, an evergreen, which puts forth its flowers in April, and the bark yields freely upon incision an acrid milk containing a considerable proportion of india-rubber. According to Balfour, 'the leaves are heart-shaped, long, pointed, and

* In our former paper, the Great seal or Half-fish was inadvertently named *Phoca barbata* instead of *Halichærus gryphus*, a mistake which we take this opportunity of rectifying.

not unlike those of some poplars; and as the footstalks are long and slender, the leaves vibrate in the air like those of the aspen. It was under this tree that Gautama slept, and dreamed that his bed was the vast earth, and the Himalaya Mountains his pillow, while his left arm reached to the Eastern Ocean, his right to the Western Ocean, and his feet to the great South Sea.' (Balfour's *Cyclopædia of India*.) This dream warned him that he was about to become a Buddha; and when its prophecy was fulfilled, he was again seated beneath the same tree.

In the year 250 B.C. a branch of this sacred tree was sent to the ancient city of Amūrādhapōra, in the interior of Ceylon, together with the collar-bone of Gautama, and his begging-dish with other relics. Here it was planted, and was known by the name of the Bo-tree. The highest reverence was paid to it for two thousand years, and it is to this day the chief object of worship to the pilgrims who every year flock to the ruins of this city. These ruins are of vast extent, and abound in intricate and magnificent carvings. 'An inclosure of three hundred and forty-five feet in length, and two hundred and sixteen in breadth, surrounds the court of the Bo-tree, designated by Buddhists the great, famous, and triumphant fig-tree.' It is declared to be the same tree sprung from the branch sent by Asoka from Buddh-gyā, and the amazing vigour and longevity of these trees make the assertion within the limits of the possible. 'The city is in ruins,' says Fergusson; 'its great dagobas (sanctuaries containing relics) have fallen into decay; its monasteries have disappeared; but the great Bo-tree still flourishes, according to the legend: "Ever green, never growing, or decreasing, but living on for ever for the delight and worship of mankind." There is probably no older idol in the world, certainly none more venerated.*

A recent Indian periodical, describing the white elephant purchased by Mr Barnum, states that, under the terms of the deed of sale, the great showman was required to swear 'by the holy and sacred Bo-tree' that the animal, itself revered in the highest degree, 'should receive every kindness and consideration.'

The next instance of a venerated tree is of a still more astonishing kind.—Tsong Kaba, the founder of the Yellow Cap Lamas, who became Buddha in the early part of the fifteenth century, was endowed from his birth with miraculous white hair. At the age of three years his head was shaved, and the hair, which was fine, long, and flowing, was thrown outside his parents' tent. 'From this hair there forthwith sprung a tree, the wood of which dispensed an exquisite perfume around, and each leaf of which bore, engraved on its surface, a character in the sacred language of Tibet.' Whatever may be thought of this legend, it is certain that the tree which

it is concerned with actually existed in the days of the Abbé Huc, who visited it, and in whose Travels it is circumstantially described. It is situated at the foot of the mountain where Tsong Kaba was born, near the lamasery or Buddhist convent called Kounboun, which signifies the 'Ten Thousand Images,' and is a famous place of pilgrimage.

'This tree,' says the abbé, 'does exist; and we had heard of it too often in our journey not to feel somewhat eager to visit it. At the foot of the mountain on which the lamasery stands is a great square inclosure, formed by brick walls. Upon entering this, we were able to examine at leisure the marvellous tree. Our eyes were first directed with earnest curiosity to the leaves; and we were filled with an absolute consternation of astonishment at finding that there were upon each of the leaves well-formed Tibetan characters, all of a green colour—some darker, some lighter than the leaf itself. Our first impression was a suspicion of fraud on the part of the lamas; but after a minute examination of every detail, we could not discover the least deception. The characters all appeared to us portions of the leaf itself, equally with its veins and nerves. The position was not the same in all: in one leaf, they would be at the top; in another, in the middle; in a third, at the base, or side. The younger leaves represented the characters only in a partial state of formation. The bark of the tree and of its branches, which resemble that of the plane-tree, is also covered with these characters. When you remove a piece of the bark, the young bark under it exhibits the indistinct outlines of characters in a germinating state; and what is very singular, these new characters are not unfrequently different from those which they replace. We examined everything with the closest attention, in order to detect some trace of trickery; but we could discern nothing of the sort. The tree of the Ten Thousand Images seemed to be of great age. Its trunk, which three men could scarcely embrace with outstretched arms, is not more than eight feet high; the branches spread out in the shape of a plume of feathers, and are extremely bushy; few of them are dead. The leaves are always green; and the wood, which is of a reddish tint, has an exquisite odour, something like cinnamon. The lamas informed us that in summer towards the eighth moon, the tree produces large red flowers of a beautiful character. Many attempts have been made in various lamaseries of Tartary and Tibet to propagate it by seeds and cuttings, but all these attempts have been fruitless.

'The Emperor Khang-hi, when upon a pilgrimage to Kounboun, constructed at his own private expense a dome of silver over the tree of the Ten Thousand Images, and endowed the lamasery with a yearly revenue for the support of three hundred lamas.' This tree is said to be still in existence.

In Hunter's *Annals of Rural Bengal*, there is the following interesting instance of tree-worship. 'Adjoining the Santal village is a grove of their national tree—the Sal (*Shorea robusta*)—which they believe to be the favourite resort of all the family gods (lares) of the little community. From its silent gloom the bygone generations watch

* 'Not long since,' said a writer some years ago in *Notes and Queries*, 'an old woman in the neighbourhood of Benares was observed walking round and round a certain peepul-tree. At every round she sprinkled a few drops of water from the water-vessel in her hand on the small offering of flowers she had laid beneath the tree. A bystander, who was questioned as to this ceremony, replied: "This is a sacred tree; the good spirits live up amidst its branches, and the old woman is worshipping them."

their children playing their several parts in life. Several times a year the whole hamlet, dressed out in its showiest, repairs to the grove to do honour to the *Lares Rurales* with music and sacrifice. Men and women join hands, and dancing in a large circle, chant songs in remembrance of the original founder of the community, who is venerated as the head of the village pantheon. Goats, red cocks, and chickens are sacrificed; and while some of the worshippers are told off to cook the flesh for the coming festival at great fires, the rest separate into families, and dance round the particular trees which they fancy their domestic lares chiefly haunt.

Three principal deities are at this day worshipped by the people of Dahomey: the serpent-god, which Burton describes as a brown python, streaked with white and yellow, of moderate dimensions, and quite harmless. This is the supreme god. 'It has one thousand Danh-si, or snake-wives.' These are maidens and married women devoted to the service of the serpent. The second deity 'is represented by lofty and beautiful trees, in the formation of which Dame Nature seems to have expressed her greatest art. They are prayed to and presented with offerings in times of sickness, and especially of fever. Those most revered are the Hun-tin, or acanthaceous silk-cotton, whose wives equal those of the snake; and the Loko, the well-known Edum, ordeal, or poison tree of the West African coast. The latter numbers fewer Loko-si or Loko spouses. On the other hand, it has its own fetich pottery, which may be bought in every market.' The god Hu, the ocean, is the youngest of the three deities; he is inferior both in power and age to the other divinities, and his turbulence is held in check by them.

The island of Ferro is the most westerly and the smallest of the Canaries. Fresh water is very scarce, and the moisture which falls from the leaves of the linden-tree is said to be collected to increase the supply. This seems to be the only foundation for a wonderful story told in Glass's *History of the Canary Islands*, concerning a 'fountain-tree,' which would certainly have received divine honours of the highest kind from all tree-worshippers. There grows, says the story, in the middle of the island a tree, 'called in the language of the ancient inhabitants, Garse—that is, sacred or holy tree—which constantly distils from its leaves such a quantity of water as is sufficient to furnish drink to every creature in Ferro. It is situated about a league and a half from the sea. Nobody knows of what species it is, only that it is called Til. The circumference of the trunk is about twelve spans, and in height it is about forty spans. Its fruit resembles the acorn, the leaves those of the laurel; but they are larger, wider, and more curved; they come forth in a perpetual succession, so that the tree always remains green. On the north side of the trunk are two large tanks. Every morning a cloud of mist rises from the sea, and rests upon the thick leaves and wide-spreading branches, whence it distils in drops during the remainder of the day. This tree yields most water when the Levant or east winds have prevailed, for by these winds only the clouds are drawn from the sea. A person lives

on the spot, who is appointed to take care of the tree and its water, and is allowed a house to live in and a certain salary.'

The story is evidently told in good faith; and the power of condensing mist is possessed by various species of trees. The Garse, moreover, has been described by more than one traveller.

In conclusion, while tree-worship is, of course, essentially pagan, innumerable superstitions concerning trees have prevailed in Christian countries, notably in England. They are now almost extinct; but the traveller in remote country-places might still meet with some of those strange instances recorded in Brand's *Antiquities* and in the *Fragments* of Edward Moor.

IN A HIGHLAND GLEN.

AN AUTUMN REVERIE.

THE dreamy hush of a warm autumn noon, broken only by the sweet murmurous sound of the falling water as it leaps from its shining pebbled shallows into the rock-encompassed linn. What could give more peace and quiet delight than this? Let us sit for one brief half-hour under the fresh green hazels and drink in the varied charms of sight and sound. We are 'far from the madding crowd,' and have left all care leagues behind. Let us rest on this mossy bank in the delight of dreamy ease, with the delicious fragrance of the wild thyme wafted to us on the wing of the gentle breeze. We are here seeking rest, and that sweet dreamy pleasure which a mind can get when it is in the delicious equipose that repose and the beauties of nature can bring. The stream's melodious wanderings in this sunny hour are of more importance to us than all the anxious worldly sounds of a city's din; and the glowing petals of that wild red rose wooing its own shadow in the stream are better far to our eyes in our present mood than any of the exquisite studies of Salvator Rosa or Claude Lorraine. What wealth of light and shadow is given to us in the far-stretching umbrageous vista! Never had cathedral aisles more perfect and graceful roof, or more radiant lights from painted windows; and is not the music here of stream and hazel-haunting warblers sweeter and more heart-inspiring than the organ's swell? The interlacing branches through which the filtered sunlight comes, rendered in flashes of green and gold, are better than the Gothic roof of cathedral aisle or dome; and the eerie cry of the curlew commends itself more to our soul—in the midst of heather and mountains as we are—than would the richest chorus of human song.

This is not the time or place for preaching or moralising; but is it out of place for us to consider in this delectable hour the exquisite delight that we poor unworthy souls get by an intense reverence for the harmonies that nature has for us! This glen, these sheltering hazels, this melodious mountain rill, are all our own. For the time we are the possessors of these green grottos and flashing waves and bird-notes, which exceed in excellence anything that kings' palaces can give.

Every rustle of the breeze turns over for us a fresh leaf of Nature's wondrous, inexhaustible

book; and the flash of emerald from the kingfisher's breast, or the glorious note from the blackbird's mellow throat, gives us sudden and bright revelations of sweetness and joy, that we can call up with a lingering delight and tenderness of feeling when we are far away. Up the bed of the glistening stream there, at a perfect artistic distance, are the silent shadowy rocks, overlooking and guarding the deep and sullen linn, and working out Nature's will with a quiet watchfulness, and with a changeless solemnity and patience. And see! right above the sombre linn there are rainbow-fringed cloudlets of spray, brought down by the laughing stream, that comes with soothing unobtrusive din over its rocky ledges.

That sound of falling waters is like a lullaby, and contains in it more of the hush of rest than anything else in nature.

What a history this mountain stream must have had in all the seasons and the centuries! and how many hearts has it not gladdened in its lights and shadows and silvery song! Its waters have chiselled these overhanging rocks into a stern beauty, and those boulders have been moulded by them into a soft symmetry and grace. Its changes are like the mutations that belong to human life, now the roar of the torrent, and now the deep calm of the clear crystalline pool. The sportive trout has long leaped from the quiet breast of its limpid shallows, and its woodlands have resounded to the song of the mavis and blackbird. The swallows that have passed their winter amid the slopes of Carmel, the groves of Sharon, or the gardens of Damascus, may be those that are now skimming over the sunlit pools there in the hush of this noontide hour. But their aerial and graceful flight is as pleasing here to us poor rest-seeking pilgrims as ever it was to the eye of vizier or khan; and the cottage eaves in this glen echo the twitter to human ears as deliciously as do the frescoed piazzas of Athens, Venice, or Rome.

What a temple is here for the worship, with reverent spirit, with silent tongue, of the One who made and loveth all! Ferns and flowers, birds and wandering bees, sunshine and singing waters! What lessons of tenderness, natural piety, and reverence may we not get here! Yon shaft of sunlight, filtered through the hazels, striking the stream, and lighting its still bosom with emerald and gold, brings before us some of the finest lines of *Lycidas*, that peerless poem of the lights and shadows and music of Arcadia.

All around us, the brightness that fills the spirit, the deep shadows beneath scaur and tree, the sound of bleating upon the hills, and the melody of waters dashing past boulders or rolling on an onward, free, and joyous music over pebbled beds, lead us alike to reverence and gratitude. Nature is a gentle, sweet, and loving teacher. We shall never touch the hem of her garment in vain. She giveth us grace and sympathy and love.

But we must leave our bosky dell in the midst of this Highland glen. We can carry away, however, memories from it that shall be always our own. The indescribable yet fascinating music of the waters falling into the linn yonder is ours for ever now; so is the rock there, cushioned with the tender green moss,

that moss that comes in silence, and lays its gentle covering mantle over the mounds of our beloved dead. There, too, a few yards from us, is a still pool which might remain for ever in one's memory. How the shadows are reflected from the flowers! Here we have the fable of Narcissus told us again in this Highland dell. But that flower near us droops—it is almost touching its shadow: they have been wooing each other long. By-and-by they will clasp each other, and wooed and wooer will float away. But it is autumn, and flowers must wither and die. When our autumn departure cometh, may our passing away be as calm!

THE RIME OF SIR LIONNE.

'Hush, a little, for harp and rhyme;
This befell in the olden time.'

W. ALLINGHAM.

In days of old, as rimesters tell,
(Culvert, and petrel, and mangonel),
A maiden dwelt in a castle stout,
Guarded and walled, within, without,
And ever defeat and direful rout
To all her castle's besiegers fell.

No suitor the maid's proud heart could win,
(Pike, and halberd, and culverin);
She recked not of love-kiss, ne vow, ne sigh,
But her song had the ring of a battle-cry:
'O strong is my fortress—a maid am I—
And never a foeman shall enter in.'

But it fell in an evening windy-wet,
(Hauberk, and helmet, and bascinet),
A knight drew rein 'neath the castle wall;
Proud was his port, his stature tall,
His face held the gazer's eye in thrall,
And a lion of gold on his casque was set.

He winded a bugle silver-clear,
(Mace, and arblast, and bandoleer),
Singing: 'Yield up thy castle, fair May, to me:
Sir Lionne ne hight, of a far countrie.
Now bounne thee, Lady, my love to be,
Or I take thee by prowess of bow and spear!'

In the pale, pale light of a crescent moon,
(Spear, and corselet, and musketoon),
She saw him there by the castle wall,
And shrilled to the warder a careless call:
'Ho!—let portcullis and drawbridge fall;
We would see this bold knight of a braggart tune.'

And oh! but the wind had changed, I trow,
(Falcon, and gauntlet, and good crossbow),
When, an eve from thence, in a fading light,
On the bastion-keep stood a maid and knight,
And, while to his heart he clasped her tight,
'Thou hast conquered, Sir Lionne!' she murmured low.

'I had vowed that no knight beneath the sun,
(Demi-pique, helm, and habergeon),
Beneath the sunlight, or moonbeam shine,
Should be lord of this castle and heart of mine:
But take me, dear love, I am only thine;
My fortress is taken—my heart is won.'

BRINHILD.

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